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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/736,627

12/13/2000

Jon D. Clauson

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06/07/2004

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EXAMINER

MCCARTNEY, LINZY T

ART UNIT

PAPER NUMBER

2671

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DATE MAILED: 06/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/736,627

Applicant(s)

CLAUSON, JON D.

Examiner

Linzy McCartney

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-11 and 13-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5-8,10 and 13-15 is/are allowed.
- 6) ☒ Claim(s) 1,2,4,9,11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 4, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,288,795 to Urasawa in view of Wilson et al., "HVS ColorGIF 2.0 User Manual" (Wilson).

- a. Referring to claim 1, Urasawa discloses receiving an electronic source image containing a plurality of colors not all of which can be painted in the output image and receiving a dithering mask corresponding to the source image (column 3, lines 23-31). Urasawa does not explicitly disclose wherein the dithering mask contains a plurality of dithering levels specifying, on a per pixel basis the degree to which colors in corresponding regions of the source image can be variably dithered to paint the output image or generating the output image from the source image by variably dithering the colors of the output image on a per pixel basis according to the dithering levels specified in the received dithering mask; wherein the colors of the of the output image are dithered by creating pixel patterns of colors that are available in the limited color palette to simulate colors that are not available in the limited color palette. Wilson discloses applying a dithering mask which contains a plurality of dithering levels specifying, on a per pixel basis the degree to which colors in corresponding regions of the source image

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can be variably dithered (Using Selections, paragraphs 3-5) and generating the output image from the source image by variably dithering the colors of the output image on a per pixel basis according to the dithering levels specified in the received dithering mask (Using Selections, paragraphs 1-5) wherein the colors of the of the output image are dithered by creating pixel patterns of colors that are available in the limited color palette to simulate colors that are not available in the limited color palette.(Using Selections, paragraphs 3-5). At the time the invention was made, it would have been obvious to one having ordinary skill in the art to modify the method of Urasawa by receiving a dithering mask containing a plurality of levels and generating an output image by variably dithering as taught by Wilson. The suggestion/motivation for doing so would have been because it would allow different areas of an image to be handled in different ways (Wilson, Using Selections, paragraph 3).

b. Referring to claim 4, Urasawa does not explicitly disclose wherein the output image is a GIF or PNG8. Wilson discloses wherein the output image is a GIF or PNG8 (Using Selections, paragraph 3). At the time the invention was made, it would have been obvious to one having ordinary skill in the art to modify the method of Urasawa by wherein the output image is a GIF or PNG8as taught by Wilson. The suggestion/motivation for doing so would have been because it would allow different areas of an image to be handled in different ways (Wilson, Using Selections, paragraph 3).

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c. Referring to claim 9, Urasawa discloses receiving an electronic source image containing a plurality of colors not all of which can be painted in the output image and receiving a dithering mask corresponding to the source image (column 3, lines 23-31). Urasawa does not explicitly disclose wherein the dithering mask contains a plurality of dithering levels specifying, on a per pixel basis the degree to which colors in corresponding regions of the source image can be variably dithered to paint the output image or generating the output image from the source image by variably dithering the colors of the output image on a per pixel basis according to the dithering levels specified in the received dithering mask; wherein the colors of the of the output image are dithered by creating pixel patterns of colors that are available in the limited color palette to simulate colors that are not available in the limited color palette. Wilson discloses applying a dithering mask which contains a plurality of dithering levels specifying, on a per pixel basis the degree to which colors in corresponding regions of the source image can be variably dithered (Using Selections, paragraphs 3-5) and generating the output image from the source image by variably dithering the colors of the output image on a per pixel basis according to the dithering levels specified in the received dithering mask (Using Selections, paragraphs 1-5) wherein the colors of the of the output image are dithered by creating pixel patterns of colors that are available in the limited color palette to simulate colors that are not available in the limited color palette.(Using Selections, paragraphs 3-5). At the time the invention was made, it would have been obvious to one having ordinary skill in the art to modify the method of Urasawa by receiving a dithering mask containing a plurality of levels and generating an output image by variably

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dithering as taught by Wilson. The suggestion/motivation for doing so would have been because it would allow different areas of an image to be handled in different ways (Wilson, Using Selections, paragraph 3).

3. Claims 2 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Urasawa in view of Wilson as applied to claims 1 and 9 above further in view of Foley et al, "Computer Graphics: Principles and Practice" (Foley).

a. Referring to claim 2, Urasawa does not explicitly disclose wherein the received dithering mask is an alpha channel of the received electronic image. Foley discloses using the alpha channel in image compositing (page 835, paragraph 3 – page 836, paragraph 3) and storing the alpha channel information in the image (page 844, paragraph 1). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the method of Urasawa by making the dithering mask an alpha channel of the image as taught by Foley. The suggestion/motivation for doing so would have been to reduce the number of files.

b. Referring to claim 11, Urasawa does not explicitly disclose wherein the received dithering mask is an alpha channel of the received electronic image. Foley discloses using the alpha channel in image compositing (page 835, paragraph 3 – page 836, paragraph 3) and storing the alpha channel information in the image (page 844, paragraph 1). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the method of Urasawa by making the dithering mask an alpha channel of the image as taught by Foley. The suggestion/motivation for doing so would have been to reduce the number of files.

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Allowable Subject Matter

4. Claims 5-8, 10, 13-15 are allowed. None of the references, either singularly or in combination, teach or fairly suggest receiving a dithering level from a corresponding pixel in a dithering mask associated with the source image, wherein the dithering level specifies the amount of the output pixel's color error to diffuse to neighboring pixels, and wherein the dithering level can specify less than the total amount of the output pixel's color is diffused to neighboring pixels.

Response to Arguments

5. Applicant's arguments filed 3/17/04 have been fully considered but they are not persuasive. Applicant argues that HVS ColorGIF 2.0 User Manual (HVS) fails to disclose, "...specifying *on a per pixel basis* the degree to which colors in the corresponding regions of the source image can be variably dithered." However, the Examiner notes HVS discloses that the user has the ability to select a desired area to be variably dithered (User Selection, paragraphs 1-5) therefore discloses the ability to dither on a per pixel basis.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Linzy McCartney** whose telephone number is **(703) 605-0745**. The examiner can normally be reached on Mon-Friday (8:00AM-5:30PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Mark Zimmerman**, can be reached at **(703) 305-9798**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

ltm
May 24, 2004



**MARK ZIMMERMAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600**

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